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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,682	05/21/2001	Edgar N. Rudisill	SS3161USNA	4206

23906 7590 05/06/2003

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1128  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805

EXAMINER
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MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

17

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,682

Applicant(s)

RUDISILL ET AL.

Examiner

Barbara J. Musser

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2003.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s) <u>16</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>16</u> . | 6) <input type="checkbox"/> Other:   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 8, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Allen(U.S Publication 2002/0125601A1).

Allen discloses an apparatus for forming multi-layer filaments by extruding two thermoplastics, forming the separate streams into planar streams via coat hangar dies, passing the planar streams through filters(82), feeding the separate streams into a spinneret having multiple flow passages, combining the two streams outside the die, and attenuating the fibers with air.(Figures 1 and 3; [0026]-[0040]; [000043])

Regarding claims 3 and 8, the die is configured for two polymers.(Figure 3)

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen

While Allen is directed to using two polymers, one in the art would appreciate that the same process could be used to form polymer fibers with three different polymers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Allen to use three polymers as how to extrude three polymers is well-known in the fiber forming art.

5. Claims 1, 3-5, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groten et al. in view of Buehning.

Groten et al. discloses forming multi-layer filaments by extruding two thermoplastics.(Abstract) The reference does not disclose the specifics of the equipment. Buehning discloses forming a meltblown fibers by forming the polymer stream into a planar stream via a coat hangar die, passing the planar stream through a filter, feeding the stream into a spinneret having multiple flow passages, and attenuating the fibers with air.(Figures 2 and 4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the equipment of Buehning to form multicomponent fibers and use in to form the fibers of Groten et al. because the device of Beuhning can be assembled and disassembled with ease while allowing removal of parts without disassembling the entire die.(Col. 2, ll. 40-44)

Regarding claims 4 and 9, While Allen is directed to using two polymers, one in the art would appreciate that the same process could be used to form polymer fibers with three different polymers. It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to modify the apparatus of Allen to use three polymers as how to extrude three polymers is well-known in the fiber forming art.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 5, and 10 have been considered but are moot in view of the new ground(s) of rejection.

Both Allen and Beuhning disclose a melt-blown die with a planar stream which is filtered, and then sent to spinnerets. Allen also discloses two polymers.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (703)-305-1352. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



BJM  
May 1, 2003

  
Michael W. Ball  
Supervisory Patent Examiner  
Technology Center 1700